



Maximum Permissive Exposure

Performance Criterion: The human RF exposure limit is 1 mW/cm².

Evaluation Results: Complies

Details: The maximum permissible exposure (MPE) is predicted by using Equation (3) of Section 2 of FCC OET Bulletin 65, Edition 97-01:

$$S = PG/4\pi R^2$$

where: S = power density (in appropriate units, e.g. mW/cm²)
P = power input to the antenna (in appropriate units, e.g., mW)
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

P = 5.1761 mW, G = 3.1623 (5 dBi), R = 20 cm

$$S = 0.0033 \text{ mW/cm}^2 = 0.033 \text{ W/m}^2$$

MPE limit for uncontrolled exposure at prediction frequency: 1 mW/cm²
Maximum allowable antenna gain: 29.9 dBi

Margin of Compliance at 20 cm = **24.9 dB**

Minimal antenna-to-user separation distance:

P = 5.1761 mW, G = 3.1623 (5 dBi), S = 1 mW/cm²

$$R = 1.1413 \text{ cm}$$